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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/759,473 | 01/15/2004 | Qinghua Li | 42P18155 | 7584 |

59796 7590 06/28/2007

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| EXAMINER | |
|---|---|
| ROBERTS, BRIAN S | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2616 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 06/28/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/759,473 | LI ET AL. | |
| | Examiner | Art Unit | |
| | Brian Roberts | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

- Claims 1-20 have been examined.

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not specify that the computer program is on a **computer readable medium**.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claims 1-13

Claims 1-13 are rejected as being indefinite because the claim recites an apparatus by the claim without claiming a structure of the apparatus.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by "Carrier-Sense Protocols for Packet-Switched Smart Antenna Basestations" by Charbel Sakr and Terence D. Todd.

- In reference to claim 1, 8

In Figure 3, Sakr et al. teaches a station with a omnidirectional antenna adapted to perform a transmission over a wireless channel to a base station (pg 48 column 2 paragraph 4); monitor the wireless channel, subsequent to completion of the transmission, to determine if another device is transmitting over the wireless channel (pg 49 column 1 paragraph 2); and begin an implicit timeout period responsive to determining the another device is not transmitting over the wireless channel. (pg 49 column 1 paragraph 2-3)

- In reference to claim 2

In Figure 3, Sakr et al. further teaches the station adapted to not begin the timeout period responsive to determining the another device is transmitting over the wireless channel. (pg 49 column 1 paragraph 2-3)

- In reference to claim 3

In Figure 3, Sakr et al. further teaches the station adapted to monitor for an acknowledgement to the completed transmission during the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 4

In Figure 3, Sakr et al. further teaches the station adapted to cancel the timeout period responsive to receiving the acknowledgement prior to an end of the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 5, 10

In Figure 3, Sakr et al. further teaches the station adapted to retransmit the transmission responsive to not receiving the acknowledgement prior to the end of the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 6, 13

In Figure 3, Sakr et al. further teaches the station monitoring for a carrier wave. (pg 49 column 1 paragraph 2-3)

- In reference to claim 7

In Figure 3, Sakr et al. further teaches the station monitoring for transmission of data. (pg 49 column 1 paragraph 2-3)

- In reference to claim 9

In Figure 3, Sakr et al. further teaches the station adapted to not begin the timeout period responsive to determining an absence of the clear channel condition. (pg 49 column 1 paragraph 2-3)

- In reference to claim 11

In Figure 3, Sakr et al. further teaches the station adapted to begin an error process responsive to not receiving the acknowledgement prior to the end of the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 12

In Figure 3, Sakr et al. further teaches the station the error process comprises preparing to retransmit the transmission over the wireless channel. (pg 49 column 1 paragraph 2-3)

- In reference to claim 14

In Figure 3, Sakr et al. teaches a station transmitting a data transmission over a wireless communications channel (pg 48 column 2 paragraph 4); monitoring the wireless communications channel, subsequent to the transmitting, until a clear channel

condition is detected (pg 48 column 2 paragraph 4); beginning a timeout period subsequent to the detecting a clear channel condition (pg 49 column 1 paragraph 2); and determining if an acknowledgement to the data transmission is received during the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 15, 18

In Figure 3, Sakr et al. teaches the station aborting the timeout period responsive to receiving the acknowledgement during the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 16, 19

In Figure 3, Sakr et al. teaches the station beginning an error process responsive to not receiving the acknowledgement prior to an expiration of the timeout period. (pg 49 column 1 paragraph 2)

- In reference to claim 17

In Figure 3, Sakr et al. teaches a station with a program inherently placing data into at least one transmit queue to perform a data transmission over a wireless communications channel (pg 48 column 2 paragraph 4); monitoring the wireless communications channel subsequent to the performing (pg 48 column 2 paragraph 4); beginning a timeout period responsive to the monitoring determining that the wireless communications channel is not busy (pg 49 column 1 paragraph 2-3); and reading data

inherently from a receive queue to determine if an acknowledgement to the data transmission is received during the timeout period. (pg 49 column 1 paragraph 2-3)

- In reference to claim 20

In Figure 3, Sakr et al. further teaches the station monitoring for a clear channel condition. (pg 49 column 1 paragraph 2-3)

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- Diepstraten (US 5339316) teaches a wireless local area network system.
- Ywoskus et al. (US 5528605) teaches a delayed acknowledgement in an asymmetric timer based LAN communications protocol.
- Odman (US 2003/0140269) teaches a method of improving system performance in a wireless network by making requests without ACK.
- Chintada et al. (US 6765870) teaches a medium access dynamic congestion control mechanism for wireless data.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR
06/20/2007

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